

# Math 471: Introduction to Numerical Methods

Winter 2013

**Prerequisites:** Differential equations (e.g. 216, 256, or 316, or equivalent).  
Linear algebra (e.g. 217, 417, or 419, or equivalent).  
Experience with or willingness to learn e.g. Matlab.

**Instructor:** Selim Esedoglu  
5860 East Hall  
esedoglu@umich.edu  
Office hours: TuTh 10:00 am -- 11:30 am

**Lecture:** TuTh 8:30 am -- 10:00 am  
2150 Dow

**Grading:** Homework: 30% (Weekly)  
Midterm: 30% (Thursday, Feb. 28, regular time. In class)  
Final: 40% (Wednesday, May 1, 8 am - 10 am. In class)

Written homework will be assigned weekly. It may or not entail short programming exercises. In general, late homework will not be accepted (except without a legitimate, well-documented excuse, e.g. a medical condition). The dates of the midterm and final exam are firm, so plan accordingly. No exceptions will be made, except for well-documented legitimate reasons. Grade distribution will be matched to those from previous years for this class, unless there is a very good reason not to do so.

**Textbook:** *A Friendly Introduction to Numerical Analysis* by B. Bradie.

**Additional references:**

1. *A First Course in the Numerical Analysis of Differential Equations* by A. Iserles.
2. *Numerical Linear Algebra* by L. N. Trefethen and D. Bau.
3. *Analysis of Numerical Methods*. E. Isaacson and H. B. Keller.